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To cite this article: Chezi Ganzel & Jacob M. Rowe (2012) Total ambulatory hemato-oncological care: a myth or reality?, *Leukemia & Lymphoma*, 53:12, 2335-2336, DOI: [10.3109/10428194.2012.700516](https://doi.org/10.3109/10428194.2012.700516)

To link to this article: <https://doi.org/10.3109/10428194.2012.700516>




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Published online: 09 Jul 2012.



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COMMENTARY

Total ambulatory hemato-oncological care: a myth or reality?

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Hemato-oncological care has undergone a revolution in the past two decades. More patients are recipients of ambulatory care and fewer require inpatient hospitalization. This trend applies to chemotherapy administration and also to pre- and post-chemotherapy care. Ambulatory chemotherapy can be given when the protocol includes daily intravenous or continuous treatment, using infusion pumps programmed to operate at predetermined hours. Safe and effective anti-emetic therapy, as exists today, is a necessary prerequisite for such management. Isolation in a hospital room with laminar flow or high efficiency particulate air (HEPA) filtration, considered for decades to be almost mandatory for severely neutropenic patients, is now being replaced by a clean room at home, with no evidence, in most cases, that the care is being compromised. Currently, patients can begin treatment in an ambulatory setting and, even in instances where absolute pancytopenia is anticipated, can remain at home with supportive blood products, fluids and antibiotics that are administered in the ambulatory care setting. For such care to be safe and effective in cases of severe neutropenia, a patient must reside close to the hospital and have access to a phone and transportation around the clock.

Currently more centers still depend on inpatient hospitalization for the most intensive therapies such as those given prior to hematopoietic cell transplant and the subsequent period of aplasia. Even if the care cannot be given in an ambulatory setting for the whole period of transplant, do patients really need to be in hospital for the entire length of the procedure? In a typical preparative regime for acute myelogenous leukemia (AML), do patients really need to be hospitalized to receive 4 days of busulfan pills? In a typical transplant regimen for multiple myeloma, when patients receive a single high dose of melphalan 24 h prior to the transplant, do they need to be hospitalized for 5–7 days while waiting to become neutropenic?

There are several courses being undertaken that lead to an increasing use of ambulatory hemato-oncologic care. Thus, it is no surprise that there are several reports describing intriguing results of ambulatory transplant, both autologous [1] and allogeneic, with chemotherapy or total body irradiation (TBI) conditioning [2].

A limiting factor in the management of such patients is the ultimate capacity, both in the number of available beds and, more importantly, in the availability of highly trained staff. In this issue of the journal, Sive *et al.* [3] publish their 7-year experience at the University College London Hospital (UCLH), of a hotel-based ambulatory care unit in London. Hundreds of patients, while those in other centers are being hospitalized for a similar medical indication, have been treated as outpatients in this unit. This system can only work with the existence of a suitable ambulatory facility very close to the day-care unit, either a private home, or, in most instances, a hotel. Such a framework permits daily ambulatory visits for management by nurses and expert physicians. After working hours, close liaison with the medical team is made by phone, which permits guidance and reassurance in ordinary circumstances, and rapid arrangements for admission in emergent cases. Remarkably, in most instances, patients have been managed alone. The requirement for an accompanying individual has only been necessary for immobile patients or those receiving ifosfamide. Over 80% of admissions have been for a hematological malignancy, approximately 50% for lymphoma and 20% for acute leukemia.

Clearly the experience from UCLH is the largest of its kind, and the data are impressive and represent recent innovations. The authors emphasize the considerable cost benefit of the system when compared with traditional hospitalization. As the spiraling cost of medical care is a central issue to all health providers, this consideration is certainly of paramount importance. Nevertheless, there are aspects that are not fully considered and are no less important. How does one measure the true benefit for individual patients rather than for society at large? An inherent assumption, as yet unproven, is that patients are at least as satisfied and the care they receive is as safe and encompassing as with inpatient-based programs. Could it be even better, avoiding the reflexive and often unnecessarily excessive use of hypnotics and analgesics, so routine for inpatients? Nevertheless, this report is a major leap forward, demonstrating the ability to move away from the traditional, more restricted methods of delivering care to patients, mostly as inpatients.

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This commentary accompanies an article to be published in *Leukemia & Lymphoma*. Please refer to the table of contents of the print issue in which this commentary appears.

Other models that will permit patients to remain in their natural environment for as long as possible are likely to be developed, and may stretch the ambulatory concept even further. Could patients be treated in their own homes, rather than in a new ambulatory setting adjacent to hospitals, through the use of mobile medical teams who could provide advanced forms of chemotherapy treatments at home? Clearly, the stress on resources would be enormous, but pilot studies are under way and likely to grow over the coming years. The era of expanded ambulatory systems has clearly arrived, and is likely to provide individual care that is at least as good as inpatient care, thus freeing financial resources for the necessary development of other modern health care technologies.

Potential conflict of interest: Disclosure forms provided by the authors are available with the full text of this article at www.informahealthcare.com/lal.

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